

CLAIMS

1. An antenna switch module comprising:

5 a filter passing fundamental frequencies and having an attenuation pole;

an antenna switch circuit switching antennas which match the fundamental frequencies; and

10 an adjustment line connected between the filter and the antenna switch circuit, the adjustment line adjusting properties at harmonic frequencies of the fundamental frequencies, wherein

15 when the filter and the antenna switch circuit are directly connected with each other at a connection point, the adjustment line prevents an impedance when the filter is seen from the connection point and an impedance when the antenna switch circuit is seen from the connection point from becoming complex conjugates of each other at the harmonic frequencies.

2. The antenna switch module of claim 1, wherein

20 a ground layer is divided into a ground layer for the filter and a ground layer for the antenna switch circuit.

3. The antenna switch module of claim 2, wherein

25 the antenna switch module includes a laminated body formed of a plurality of dielectric layers.

4. The antenna switch module of claim 3, wherein

the filter is a notch low pass filter.

5. The antenna switch module of claim 4, wherein

the antenna switch circuit includes an antenna switch element which is a PIN diode.

6. The antenna switch module of claim 5 further comprising:
5 a coupling line coupled with the adjustment line, wherein the coupling line and the adjustment line form part of a directional coupler.

7. The antenna switch module of claim 1, wherein
10 the antenna switch module includes a laminated body formed of a plurality of dielectric layers.

8. The antenna switch module of claim 1, wherein
the filter is a notch low pass filter.

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9. The antenna switch module of claim 1, wherein
the antenna switch circuit includes an antenna switch element which is a PIN diode.

20 10. The antenna switch module of claim 1, wherein
the antenna switch circuit includes an antenna switch element which is a GaAs switch.

25 11. The antenna switch module of claim 1 further comprising
a coupling line coupled with the adjustment line, wherein the coupling line and the adjustment line form part of a directional coupler.